

REMARKS

Applicants appreciate the Examiner's thorough consideration provided the present application. Claims 1, 5-7, 12 and 25-29 are now present in the application. Claim 12 has been amended. Claims 1 and 12 are independent. Reconsideration of this application, as amended, is respectfully requested.

Reasons For Entry Of Amendments

As discussed in greater detail hereinafter, Applicants respectfully submit that the rejection under 35 U.S.C. § 103(a) is improper and should immediately be withdrawn. Accordingly, the finality of the Final Office Action mailed on January 13, 2009 should be withdrawn.

In addition, since the amendments to claim 12 are simply made to rewrite claim 12 in independent form, it is believed that no new issue is raised. In accordance with the requirements of 37 C.F.R. §1.116, Applicants respectfully request entry and consideration of the foregoing amendments.

Claim Rejections Under 35 U.S.C. § 103

Claims 1, 5-7, 12 and 25-29 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Choi, U.S. Patent No. 6,744,157, in view of Kurihara, JP 10-210727, and further in view of Uemura, U.S. Patent No. 6,781,263. This rejection is respectfully traversed.

A complete discussion of the Examiner's rejection is set forth in the Office Action, and is not being repeated here.

Independent claims 1 and 12 recite a combination of elements including “a stator; a rotor rotatably disposed around the stator; and a rotor cup having cooling-holes formed at the bottom part thereof for allowing external air to flow into the inside of the rotor cup therethrough, and lower blades formed at the bottom part thereof for generating a blowing force, the rotor being fixed to the rotor cup at the inner circumference thereof, wherein each of the lower blades protrudes from one side of each of the cooling-holes towards the stator, wherein each of the lower blades and the cooling-holes has an acute sloping angle to the line extended in the rotating direction of the rotor cup and perpendicular to the radial direction of the rotor cup, and wherein a plurality of upper blades are located above the top of the rotor for discharging external air, which flows into the rotor cup through the cooling-holes formed at the bottom part of the rotor and then passes through the stator, to outside of the rotor cup, and wherein a plurality of vents are located at a lower circumferential surface of the rotor cup, a bottom of the vents is located above a bottom of the rotor cup, and a top of the vents is located above a top of the lower blades such that the air introduced into the inside of the rotor cup through the cooling holes formed at the bottom of the rotor cup collides with the stator and is discharged to outside of the rotor cup without passing through the stator.”

Independent claim 12 further recites “wherein the ratio of the whole areas of the cooling-holes to the whole areas of the vents is 2:1 to 4:1.”

Applicants respectfully submit that the above combinations of elements as set forth in independent claims 1 and 12 are not disclosed or suggested by the references relied on by the Examiner.

In particular, Applicants respectfully submit that the Choi reference is a disqualified reference for a rejection under 35 U.S.C. § 103(a), because the instant application and the Choi reference were owned by the same assignee, LG. ELECTRONICS INC., at the time the invention was made. According to 35 U.S.C. §103(c)(1),

Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Here, the present application was filed on January 8, 2004. Since the Choi reference was issued after January 8, 2004 (*i.e.*, June 2004), the Choi reference qualifies as prior art only under 35 U.S.C. §102(e). Accordingly, Applicants respectfully request that the Examiner remove the Choi reference in accordance with 35 U.S.C. §103(c)(1) and that the 103(a) rejection relying on the Choi reference be withdrawn.

In addition, the present application claims the right of priority under 35 U.S.C. §119 based on the Korean Patent Application No. 10-2003-0010773 filed on February 20, 2003. Therefore, although the U.S. Patent Application Publication No. 2003/0151315 (hereinafter "the '315 Publication") corresponding to the Choi reference was published prior to the U.S. filing date of the present application, the '315 Publication was published (on August 14, 2003) after the foreign priority date of the present application (*i.e.*, February 20, 2003). In other words, even if the Examiner were to turn to rely on the '315 Publication in the next Office Action (which was not relied on by the Examiner in the outstanding Office Action to reject any of the claims of the present application), this rejection can be easily overcome by submitting a verified English translation of Korean Patent Application No. 10-2003-0010773, because the '315 Publication

qualify as prior art only under 35 U.S.C. §102(e) and therefore is a disqualified reference for a rejection under 35 U.S.C. § 103(a).

In addition, as recited in claim 12, the ratio of the whole areas of the cooling holes to the whole areas of the vents is 2:1 to 4:1. Therefore, about 1/4 to 1/2 of the cooling air sucked into the motor through the cooling holes is discharged outwardly through the vents, and about 1/2 to 3/4 of the cooling air sucked into the motor is discharged outwardly through the upper blades after passing through the stator. Therefore, by providing the claimed ratio of the whole areas of the cooling holes to the whole areas of the vents, cooling effect of the motor is enhanced.

The Examiner has correctly acknowledged that the utilized references fail to teach “the ratio of the whole areas of the cooling-holes to the whole areas of the vents is 2:1 to 4:1” as recited in claim 12. However, the Examiner alleged that this feature is simply an obvious matter of engineering design. Applicants respectfully disagree. In particular, MPEP 2144.05.II.B states as follows:

B. Only Result-Effective Variables Can Be Optimized

A particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977) (The claimed wastewater treatment device had a tank volume to contractor area of 0.12 gal./sq. ft. The prior art did not recognize that treatment capacity is a function of the tank volume to contractor ratio, and therefore the parameter optimized was not recognized in the art to be a result- effective variable.). See also *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980) (prior art suggested proportional balancing to achieve desired results in the formation of an alloy). (Emphasis added).

Here, none of the utilized references disclose any the ratio of the whole areas of the cooling-holes to the whole areas of the vents. Therefore, none of the utilized references recognize the

ratio of the whole areas of the cooling-holes to the whole areas of the vents as a result-effective variable to achieve a recognized result, *i.e.*, enhancement of the cooling effect of a motor.

Since the ratio of the whole areas of the cooling-holes to the whole areas of the vents is not recognized by any of the utilized references as a result-effective variable, this parameter optimized cannot be recognized in the art to be a result-effective variable. Therefore, it is not obvious for one skilled in the art to provide the ratio of the whole areas of the cooling-holes to the whole areas of the vents as 2:1 to 4:1 as recited in independent claim 12.

Since the instant Office Action has only one rejection which relies on the Choi reference, and the Choi reference is a disqualified reference, reconsideration and withdrawal of the rejection under 35 U.S.C. § 103 are respectfully requested.

CONCLUSION

All the stated grounds of rejection have been properly traversed and/or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently pending rejections and that they be withdrawn.

It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.

In the event there are any matters remaining in this application, the Examiner is invited to contact the undersigned at (703) 205-8000 in the Washington, D.C. area.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicants respectfully petition for a one (1) month extension of time for filing a response in connection with the present application.

Application No. 10/752,548
Amendment dated: April 15, 2009
Reply to Office Action of January 13, 2009

Docket No.: 2832-0174P

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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